

XXXVII.—*Brief Descriptions of new Thysanoptera*.—I.  
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IN this series of papers I propose to shortly describe new Thysanoptera, or thrips, from various parts of the world, though the collections in my hands at present are chiefly from Africa and India. This material, for which my hearty thanks is due, has been received from many sources, which I will more particularly mention in several larger contributions now in preparation.

I am especially anxious to have material from Australia, Japan, Asia (particularly from the north and west), Central and South Africa, South America, and the Polynesian and other groups of islands.

### Suborder TEREBRANTIA.

#### Family Thripidæ.

*Retithrips bicolor*, sp. n. (Vine thrips).

♀.—Length about 1·6 mm.

Rich golden-yellow, tinged lightly with brown; head, mesothorax, and metathorax (the latter anteriorly and laterally only) dark brown; legs yellow and antennæ light lemon-yellow. Sculpture and reticulation very strong. Vertex of head broadly raised, arcuate, with a median break; cheeks converging from behind eyes, slightly sinuate. Maxillary palpi apparently 4-jointed, the basal joint as long as the other three (? or two) together. Antennæ set below vertex, distant at base, very slender, and more than twice as long as the head; joints 3 to 6 more or less claviform; 3 as long as the two basal joints together, 4 slightly shorter than 3, and 5 and 6 about two-thirds ( $\frac{2}{3}$ ) the length of 4. Prothorax shorter than the head. Wings with cilia (which are smoky brown) on lower margins only; lower wing with dark median vein from base to apex.

In my two preparations with wings expanded I have been, as yet, unable to make out any arrangement of spines.

♂.—Length 1·15 mm.

Abdominal sternites 3 to 7 (? 2 to 6) with a roundish pale depression. Tenth abdominal segment with a pair of stout lateral bristles, which are apically strongly flattened out in the form of a broad V, with the apex truncate.

*Hab.* Ceylon, on vine (*E. E. Green*).

Readily separated from *Retithrips ægypticus*, Marchal, by its coloration, the long slender antennæ, and the shape of joints 3 to 6, and the longer and more slender wings. Dr. Marchal does not describe any special characteristics of the ♂ *ægypticus*.

*Heliothrips indicus*, sp. n.

♀.—Length 1·2 mm.

In *fasciatus*, *fasciapennis*, and *phaseoli* group, but readily distinguished by the male characteristics. Type of coloration (except wings) and form of antennæ as in *fasciatus*. Maxillary palpi two-segmented. Wings overreaching tip of abdomen; fore-wings white, tinged with grey at base, second and third fourths wholly grey-brown, decidedly lighter in middle, though the colouring is not broken; apical fifth grey-brown. Venation as in *fasciapennis*; basal vein set with two basal spines and one near fork; upper vein (fused with costa) with two near fork and two near apex; lower vein with five or six (usually 2 + 3 + 1) more or less regularly placed spines.

♂.—Length 1·0 mm.

Ninth tergite with six rather long dorsal spines, one set on each side of the mid-line at a little distance from the posterior margin, and the other four in a line (but the inner pair set wider apart than the first-named pair) near the posterior margin. Abdominal sternites 3 to 7 with a strongly transverse pale area or depression, more or less arcuate, gradually lessening in size from the fourth to the seventh segment, the former being about fifteen and the latter eight times as wide as long. In *cinctipennis*, Hood, these pale areas are almost round, in *fasciatus*, Perg., they are transversely ovate, whilst in *fasciapennis*, Hinds, and *phaseoli*, Hood, they are transverse, but only five and nine times as long as wide respectively, and not arcuate.

*Hab.* INDIA: Sirsiah, Bengal, in numbers on indigo, 1908; and Surat, Bengal, on onions, berseem, and brinjal, February 1909 (*Maxwell Lefroy*).

*Euthrips (Anaphothrips) alternans*, sp. n. (Maize thrips).

♀.—Length 1·3 to 1·4 mm.

Head and first two abdominal segments dark grey-brown; pterothorax yellowish-brown to grey-brown; abdominal segments 7 to 10 dark chestnut-brown, 6 generally a similar or lighter chestnut-brown; prothorax, legs, and abdominal segments 3 to 5 yellow, at most lightly tinged with grey.

Antennal joint 1 light grey-brown; 2 darker brown, concolorous with the head; 3 clear lemon-yellow; 4 also yellow, but slightly deeper, and in some specimens tinged lightly with grey; 5 (except base, which is light) to 8 chestnut-brown. Wings very light grey; a dark greyish-brown patch across each fore wing from the basal fifth to about the middle; hind vein with dark median vein extending almost to tip.

Head as long as, or very slightly longer than, broad, about as long as the prothorax, and 0.5 the length of the antennæ. Antennal joint 6 not divided; prothorax without setæ at posterior angles. Wings broad near base, a few spines on both upper and lower veins of fore wing, irregularly placed and inconspicuous.

*Hab.* EGYPT: Bahteem, near Cairo, May 1st, 1911, common on maize (*E. C. Willcocks*).

*E. alternans* closely approaches *E. sudanensis* (Tryb.), but is sharply distinguished by the lighter basal joint of antennæ, the yellow prothorax, and the long head. It is also a larger insect.

*Physothrips lefroyi*, sp. n. (Tea-flower thrips).

A very distinctive species.

♀.—Length 1.4 to 1.7 mm.

Yellowish-white, lemon-yellow to yellow in darker specimens; bristles, cilia of wings, and antennal joints 2, 4, and 6 rich reddish brown. Antennal joint 4 basally yellow, and 5 only lightly tinged with reddish brown. Relative length of joints 3 to 8 as follows:—26 : 26 : 21 : 21 : 3 : 5.

Spines in upper vein of fore wing 2+3 near base, 1 near middle, and 2 in distal third. Apical abdominal spines long.

♂.—Slightly smaller. Ninth tergite with six stout dorsal spines; four moderately long, forming an obverse arc, and a pair of shorter and stouter ones placed on a higher plane and medianly within the circumference of the arc. Spines and cilia more lightly coloured and antennæ practically unicolorous.

*Hab.* INDIA: Lebong, Darjeeling, Bengal, in the flowers of tea, Feb. 6th, 1909 (*Maxwell Lefroy*).

Named in honour of Prof. Maxwell Lefroy.

*Physothrips funtumiæ*, sp. n. (Rubber thrips).

♀.—Length 1.45 to 1.6 mm.

Colour dark grey-brown; legs rather lighter and fore-tibiæ

yellowish-brown to yellowish-white at tips; intermediate (and usually hind) tibiae yellowish-white at tips. Fore-wings and cilia smoky yellowish-brown, lighter at base. Eyes coarsely faceted, pilose. Relative lengths of antennal joints 3 to 8 as follows:—20 (with stem) : 20 : 16 : 21 : 4·5 : 7·5. Third broader than any of the succeeding joints; fifth and sixth rather slender. Prothoracic bristles at posterior angles 0·65 the length of the prothorax. Legs sparingly clothed with setae. Upper vein of fore-wing with 3+3 spines in the basal half near base, and only two spines in the distal half, together near tip. Apical abdominal spines long.

♂.—Length 1·0 to 1·1 mm., and more slender than ♀.

Each of the sternites 3 to 7 with a strongly transverse pale depression near upper margin\*, and numerous, more or less small, irregular (but inclined to be roundish) areas of a similar nature placed irregularly over the whole of the surface. Ninth tergite with four short, stout, dorsal spines in the form of an obverse arc, inner pair more apical and shorter than the outer pair. Colour lighter; third antennal joint yellowish-white and joints 4 to 6 also yellowish-white in their basal halves.

*Hab.* AFRICA: on rubber-trees (*Funtumia elastica*), Uganda and Southern Nigeria (from several correspondents).

*Physothrips usitatus*, sp. n.

♀.—Length 1·6 mm.

Near *P. sjöstedti* (Tryb.). Colour brown, third antennal joint yellowish-brown to greyish-yellow; fore-femora (in *sjöstedti* dark) yellow, lightly tinged with brown, especially on the outer margin; fore-tibiae, all tarsi, and intermediate and hind-tibiae at extreme apices yellow. Fore-wing lightly tinged with brown at extreme base; clear to basal third and thence brown to apex, with a lighter patch just before apex; mid-vein of hind-wing extending to apex, brown; all spines and cilia dark. Head almost as long as broad and not quite as long as prothorax. Interocular bristles long. Antennae 2·5 times as long as the head; relative lengths of joints:—13 : 15 : 23 : 23 : 14 : 21 : 6 : 8. Double trichomes on joints 3 and 4 long and stout. Middle joint of maxillary palpi the shortest. Upper vein of fore-wing with three basal bristles, a series of 11 (10–13) commencing at about the first fourth and running to, or just into, the distal third, and 2 at extreme apex; lower vein with series of 13 (12–15) bristles com-

\* These may be broken up into a line of smaller depressions.

mencing at basal third. Body elongate, only slightly broader than the pterothorax. Apical segment about 0.2 shorter than ninth abdominal segment; bristles long, nearly as long as the two apical segments together.

This species differs from both *sjöstedti* (Tryb.) and *variabilis*, sp. n., in the long series of bristles in the lower vein commencing at the basal third, instead of with the corresponding series of upper vein at the basal fourth.

*Hab.* INDIA: Allahabad, in flowers of *Butea frondosa* (A. D. Imms).

*Physothrips variabilis*, sp. n.

♀.—Length 1.1 to 1.6 mm.

Near *sjöstedti* (Tryb.) and *usitatus*, sp. n., but broader. Dark specimens dark chestnut-brown; third antennal joint yellow; fore-tibiæ yellowish; intermediate and hind-tibiæ grey-brown; all tarsi yellowish. Light specimens light-grey to yellowish-brown; pterothorax lighter and abdominal segments 1 to 7 yellowish, only slightly tinged with grey-brown. Fore-wings and cilia light greyish-yellow, a lighter patch near apex; basal third clear. Upper vein with three basal spines, a series of 9 to 14 commencing at about the first fourth, and running well into the distal fourth on to the distal fifth; 2 at extreme apex. Spines of lower vein commencing also at the distal fourth. Head transverse, shorter than prothorax; eyes pilose. Relative lengths of antennal joints 3 to 8:—23 : 24 : 16 : 24 : 5 : 6. Double trichomes on segments 3 and 4 very large. Abdominal bristles long. Legs sparingly spinose.

Differs from *sjöstedti* (Tryb.) and *usitatus*, sp. n., by the broad form and transverse head and by the long series of spines in the upper vein of fore-wing extending to beyond the basal fourth.

*Hab.* COMORO ISLANDS?: "R. Oberthür, Coll. Marie. Mayotte?" (Leyden Museum).

*Thrips assimilis*, sp. n.

♀.—Length 1.1 mm.

Closely resembles *T. albopilosus*, Uzel, but is larger and differs in the following particulars:—Relative lengths of antennal joints 3 to 7:—18 : 15 : 12 : 18 : 6; 5 distinctly shorter than 4 and 5 and 6 both broader than 3 or 4. Upper vein in fore-wing with 12 bristles, viz. 6 + 1 in basal half and 5, more or less regularly placed, in distal half.

*Hab.* TUNIS: Sousse, 1 ♀, Feb. 28th, 1903 (Biro).

## Suborder TUBULIFERA.

## Family Phlœothripidæ.

*Compsothrips reuteri*, sp. n.\*

♀.—Length about 2·0 mm.

Dark chestnut-brown, including legs and tarsi. Basal antennal joint brown; 2 shaded to yellow apically; 3 clear yellowish-white; 4 to 6 yellow, with 5 lightly and 6 more strongly shaded with brown apically; 7 brown and 8 yellowish-brown, lighter than 7. Head about 2·5 times as long as the prothorax, and 1·75 as long as broad behind eyes; cheeks slightly arcuate at about the posterior third. Pterothorax slightly longer than broad. Abdomen oblong-ovate, sharply narrowed from segment 8 to base of tube. Tube about 0·6 the length of the head and less than half (0·5) as broad at apex as at base. Legs long.

Resembles *C. (Leurothrips) linearis* (Bagn.) in type of coloration, but may be recognized by its smaller size, broader, more ovate, and shorter body, and the relatively longer head and legs.

*Hab.* EGYPT: Suez, 1 ♀, Aug. 4th, 1902 (*Biro*).

*Cryptothrips trybomi*, sp. n.†

♂.—Winged; length just over 2·0 mm.

Colour chestnut-brown, head yellowish brown, and tip of tube lighter; all legs yellow, wings tinged lemon-yellow; antennæ yellowish-brown, joint 3 lemon-yellow and 4 a deeper yellow. Head about 1·6 times as long as broad and 2·2 as long as the prothorax. Mouth-cone broadly rounded, extending to mesosternum. Eyes rather small, vertex raised. Ocelli large; postocular bristles present. Antennæ 1·75 times as long as head, joints 3 and 4 mildly claviform, and 5 and 6 elongate-fusiform, almost cylindrical. Prothorax strongly transverse, 2·5 times as wide through middle as long; all bristles present, long and light-coloured. Legs long. Nine cilia near apex of fore wing duplicated. Abdomen elongate; tube 0·6 the length of the head.

*Hab.* GERMAN EAST AFRICA: Moschi, Aug. 15th, 1905, 1 ♂ (*C. Katona*).

Easily distinguished by its type of coloration and by the unusual form of the antennal joints 5 and 6.

\* Named in honour of Prof. O. M. Reuter, Helsingfors.

† Named in honour of the late Dr. Filip Trybom of Stockholm.



*Cryptothrips citricornis*, sp. n.♂.—Forma *aptera*.

Length about 2.5 mm.

Elongate and linear. Colour chestnut to grey-brown; metathorax and abdominal segments 1 to 7 lighter, tinged with yellow. Antennæ yellow, sixth joint very faintly and the penultimate and apical joints tinged with grey; all femora grey-brown, with the extreme apices faintly yellowish; all tibiæ and tarsi lemon-yellow. Hypodermal pigmentation deep and widely diffused.

Head almost as in *icarus*, Uz., not quite 1.5 as long as broad just behind the eyes (where it is broadest), and nearly twice as long as the prothorax, which is strongly transverse. Ocelli moderately large, remote from inner margins of eyes. Postocular and all prothoracic setæ well developed, yellow. Wings and wing-retaining spines absent. Tube about 0.65 the length of the head and 2.3 times as long as broad at base. Apical bristles nearly as long as tube.

Related to *icarus*, Uz., from which it may be distinguished by its larger size, more elongated body, and also by its yellow antennæ, and the dark femora and light yellow tibiæ.

*Hab.* GERMAN EAST AFRICA: Arusha, Oct. and Nov., 1905 (*C. Katona*).

*Haplothrips karnyi*, sp. n.\*

♀.—Length about 1.9 mm.

Colour dark grey-brown; crimson hypodermal pigmentation widely diffused; fore-tibiæ yellowish. Antennal joints 3 to 5 light yellow; 6 also yellow, tinged with light greyish-brown apically; 7 yellowish grey-brown, and 8 darker brown. Wings with a smoky tinge. Head and prothorax almost as in *kilimandjaricus* (Tryb.); head 1.35 as long as broad and about 1.5 times as long as the prothorax. Postocular and all prothoracic setæ long and stout, knobbed. Mouth-cone reaching a little more than halfway across prosternum. Prothorax 1.6 broader than long. Fore-tarsus with a small tooth. Posterior margin of fore-wing with seven cilia duplicated near apex. Tube 0.6 the length of head; abdominal bristles long and moderately stout, wing-retaining bristles stout.

*H. karnyi* comes nearest to *calhircensis* (Tryb.) and *kilimandjaricus* (Tryb.), differing from both in the more greatly developed postocular and prothoracic setæ, and in the long

\* Named in honour of Dr. H. Karny of Elbogen.

abdominal bristles, those on segments 7 to 9 being nearly as long as the tube. It differs from *usitatus* (Bagn.) in this latter respect and also in the longer head and prothorax.

*Hab.* GERMAN EAST AFRICA; Arusha, Oct. and Nov., 1905 (*C. Katona*).

*Haplothrips longisetis*, sp. n.

♀.—Length about 1.75 mm.

Elongate and linear. Brown, first abdominal segments somewhat lighter; tube darker basally; femora grey-brown; tibiae yellow, tinged with brown on the outer margin and basally; third antennal joint yellow, fourth rather lighter brown than the succeeding joints. Wings colourless, transparent, posterior margin of fore-wing with four cilia duplicated near apex. Head 1.14 as long as broad, about 1.25 as long as the prothorax, and about 0.6 the length of the antennæ. Mouth-cone very short and rounded. Prothorax 1.6 as broad as long; all setæ present, knobbed. Fore-tarsus with prominent tooth. Tube 0.58 the length of the head; apical setæ exceptionally long, 2.25 times as long as the tube; those on ninth abdominal segment 1.5 the length of the tube.

*H. longisetis* comes in the *aculeatus* group, but is readily recognized by the long apical abdominal hairs.

*Hab.* ALEXANDRIA: one example found in a dead twig of fig (*Ficus* sp.), March 6th, 1905.

Submitted by Mr. F. V. Theobald.

*Haplothrips brevicollis*, sp. n.

♀.—This species has the fore-tarsus unarmed and comes nearest to *cahirensis* (Tryb.). It may be separated from all the species in that group, however, by its very short and strongly transverse prothorax. The head is nearly 0.9 as broad as long and 1.85 times the length of the prothorax, which latter is 2.3 times as broad as long. The tube is 0.6 the length of the head. The posterior margin of the fore-wing has six cilia duplicated near the posterior margin.

*Hab.* AFRICA: Kibosho, 1903 (*Kittenberger*).

*Hoplandrothrips hoodi*, sp. n.\*

Forma *macroptera*.—Length 1.2 to 1.5 mm.

Colour yellowish-brown to grey-brown; tube grey-brown,

\* Named in honour of the American Thysanopterist, Mr. Douglas Hood.



darker near basal third and laterally. Antennæ with joints 1 to 3 yellow; 4 and 5 light brown, with basal thirds yellow; 6 light brown, with basal fourth yellow; 7 and 8 brown. All femora light brown, shaded to yellow apically; fore-tibiæ yellow, and intermediate and hind-tibiæ yellowish distally and basally. Hypodermal pigmentation thick.

Head twice as long as prothorax and about 1.25 times as long as wide; cheeks bulging behind eyes, and from thence converging to base. Eyes finely faceted; ocelli moderately large. Postocular bristles present, knobbed. Mouth-cone extending across prosternum. Antennæ more than twice as long as the head. Prothorax strongly transverse, 2.3 times as wide through middle as long; all bristles present, knobbed. Nine cilia near apex of fore-wing duplicated. Fore-legs stout and tarsi armed; fore-tibia in the ♂ with one tooth near base, and femur with two teeth near apex within; in the ♀ simple. Abdomen roundly narrowed from segment 6 to base of tube. Tube about 0.5 times the length of head. Apical bristles almost as long as tube. Abdominal bristles well-developed; segments 3 to 8 with one shorter stout pair and one straight knobbed pair.

*Forma aptera*.—Wings and wing-retaining spines absent.

*Hab.* GERMAN EAST AFRICA: Arusha, f. *macroptera*, 1 ♂, f. *aptera*, 1 ♂ and 1 ♀, Oct.–Nov., 1905 (*C. Katona*).

*Trichothrips longicornis*, sp. n.

*Forma aptera*.—Length about 1.6 mm.

Yellowish to chestnut-brown, head and abdomen generally darker; tube shaded to yellow at apex. Fore-tibia, at least apically, yellowish; basally and along the upper and lower margins dark brown. Antennæ with basal joint concolorous with head; 2 yellowish, tinged with brown basally; 3 to 6 clear lemon-yellow, 6 sometimes faintly tinged and 7 and 8 very lightly tinged with brown.

Head quadrate, only 0.08 longer than broad and about 1.5 times as long as the prothorax; cheeks parallel to basal fourth, then slightly narrowed posteriorly. Eyes well-developed; front ocellus facing forwards; postocular bristles long. Mouth-cone broadly rounded, not quite reaching across the prosternum. Antennæ about 2.2 times the length of head, set below vertex; relative lengths of antennal joints 3 to 8 as follows:—20 : 19 : 20 : 21 : 23 : 18; two apical joints slender.

Prothorax transverse, 0.5 as long as broad; pterothorax nearly as broad as the width across fore-coxæ, slightly

broader than long. Abdomen elongate, almost parallel to segment 7. Tube about 0·7 the length of the head. Abdominal spines pointed.

Nearest *T. femoralis*, Moulton, from which it may be distinguished by the shorter and more transverse prothorax, the relative lengths of the distal antennal joints, the shorter tube, and the colour of the fore-tibia and tube.

*Hab.* WEST AFRICA: Sierra Leone.

Numerous dried specimens in the British Museum.

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XXXVIII.—*Descriptions of new Species of Pyralidæ of the Subfamily Pyraustinae.* By Sir GEORGE F. HAMPSON, Bart., F.Z.S., &c.

[Continued from p. 38.]

(7 b) *Tegostoma confluentalis*, sp. n.

♀. Head, thorax, and abdomen white tinged with pale brown. Fore wing reddish brown; the base suffused with white; the costal edge white; an oblique white medial band, straight from costa to vein 1, then curved outwards and joining at inner margin the rather strong, obliquely curved, yellowish-white postmedial line; termen narrowly white; cilia white. Hind wing white slightly tinged with brown.

*Hab.* EGYPT (*Fortescue*), 1 ♀ type. *Exp.* 26 mm.

(8 a) *Tegostoma anæmica*, sp. n.

♂. Head, thorax, and abdomen whitish tinged with pale red-brown. Fore wing pale red-brown; an oblique yellowish-white postmedial band defined on outer side by red-brown. Hind wing pale red-brown.

*Hab.* BALUCHISTAN, Mekran Coast, Ormara (*Cumming*), 1 ♂ type. *Exp.* 12 mm.

(8 a) *Noctuelia tristrigalis*, sp. n.

Black; fore coxæ and mid femora with white streaks; abdomen with the ventral surface white except at extremity; anal tuft white. Fore wing with orange-yellow patch from base extending below costa to beyond middle and to tornus, leaving the costa and inner margin narrowly black, its outer